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Kemal Guler

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EXAMINER

CRANFORD, MICHAEL D

ART UNIT

PAPER NUMBER

3696

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/694,589	Applicant(s) GULER ET AL.	
	Examiner MICHAEL D. CRANFORD	Art Unit 3696	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is in reply to the amendment filed on 17 July 2008.
2. Claims 1-19 are currently pending and have been examined.
3. The rejections of claims 1-19 have been updated to reflect the amendments.

Applicant's arguments received on 17 July 2008 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims.

With regard to the limitations of claims 1-19, Applicant argues Ausebel fails to disclose the limitations found in Claim 1 of Applicant's invention. Applicant further states that Ausebel fails to teach sub-samples of auction data in which each sub-sample comprises bid data for auctions having same number of bidders, with the number of bidders varying from one sub-sample to the next. Applicant continues by stating that Ausebel also fails to disclose "applying an inverse bid function to at least two sub-samples." Ausebel's art fails to teach or even suggest pooling results from applying the inverse bid function to form a first pool. Lastly, Applicant explains how Ausebel fails to show "matching bids from at least one sub-sample to the sample bids" and then "pooling results from the matching with the first pool to form a second pool."

Examiner finds that Ausebel discloses sub-samples of auction data in which each sub-sample comprises bid data for auctions having same number of bidders (see at least FIGS. 4, 5 and 5B). Ausebel also shows the following: inverse bid function, pooling results from applying inverse bid function. These limitations can also be found in FIGS. 4, 5 and 5B. FIG. 8 shows the bid function in first pool is used to generate bids for the second pool. Examiner respectfully maintains rejections based on the information provided above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-19 are rejected under 35 U.S.C. 102 (b) as being unpatentable over Ausebel (US 6,021,398).

6. **Claim 1:**

Ausebel shown, discloses the following limitations:

- *organizing previously acquired auction data into a plurality of sub-samples (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)*
- *each sub-sample comprising bid data associated with auctions having a common number of bidders, the number of bidders varying among the sub-samples (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information*

about the history of bidding....all of this information is stored in a database used for analysis)

- *applying an inverse bid function to at least two sub-samples* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *pooling results from applying the inverse bid function to form a first pool* (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)
- *applying a direct bid function on the first pool to generate sample bids* (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)
- *matching bids from at least one sub-sample to the sample bids* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *pooling results from the matching with the first pool to form a second pool* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)

7. Claim 2:

Ausubel shown, discloses the following limitations:

- *applying a function that is applicable to an independent private values ("IPV") auction (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)*

8. Claim 3:

Ausubel shown, discloses the following limitations:

- *applying a function that is applicable to an independent private values ("IPV") auction (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)*

9. Claim 4:

Ausubel shown, discloses the following limitations:

- *forming a first group of large sub-samples and a second group of small sub-samples (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)*
- *small sub- samples containing bid data associated with auctions that have fewer than a pre- specified total number of bid observations (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)*

- *large sub-samples containing bid data associated with auctions that have more than a pre-specified total number of bid observations (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted....information gathered for analysis)*

10. Claim 5:

Ausubel shown, discloses the following limitations:

- *organizing previously acquired auction data into a plurality of sub-samples (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)*
- *each sub-sample comprising bid data associated with auctions having a common number of bidders (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)*
- *first sub-sample comprising bid data associated with auctions having more bidders than all other sub-samples (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)*
- *applying an inverse bid function to the largest sub-sample to produce initial pseudo values (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)*

- *applying a direct bid function to the initial pseudo values to calculate sample bids associated with a second sub-sample that is the next largest sub-sample, in terms of number of bidders, after the first sub-sample (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)*
- *matching bid data contained in the second sub-sample with the sample bids to produce second pseudo values (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)*
- *combining the first and second pseudo values together to produce combined auction values (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)*

11. Claim 6:

Ausubel shown, discloses the following limitations:

- *applying the direct bid function to the combined auction values to calculate additional sample bids associated with a third sub-sample that is the next largest sub-sample after the second sub-sample, in terms of number of bidders (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)*

12. Claim 7:

Ausubel shown, discloses the following limitations:

- *matching the additional sample bids with the third sub-sample to produce third pseudo values and combining the third pseudo values into the combined auction*

values (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)

13. Claim 8:

Ausubel shown, discloses the following limitations:

- *applying the direct bid function to calculate additional sample bids associated with additional sub-samples of decreasing size, in terms of the number of bidders* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *matching the sample bids to the additional sub-samples to produce additional pseudo values, combining the additional pseudo values into the combined auction values* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)

14. Claim 9:

Ausubel shown, discloses the following limitations:

- *processor* (see at least column 6 lines 18-23....the auctioneer's computer or auctioneer's system implements an auctioneer process or query process and may consist of one or more computers, workstations, or any other hardware items which contain a CPU and may contain an interface including for example a keyboard and display)
- *memory containing an auction application that is executed by the processor and causes the processor to form a plurality of sub-samples from an auction data set*

(see at least column 12 lines 40-44....within the data portion of the memory, an auctioneer's listing of a sequence of value pairs. Each value pair includes an amount representing a number of shares of stock or other objects offered and a value parameter indicating the offered price for the number of objects)

- *each sub- sample comprising bid data associated with auctions having a common number of bidders* (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)
- *apply an inverse bid function to at least two sub-samples* (see at least column 6 lines 50-51....bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *aggregate results from applying the inverse bid function to form a first pool* (see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)
- *apply a direct bid function on the first pool to generate sample bids* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *match bids from at least one sub-sample to the sample bids* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *aggregate results from the matching with the first pool to form a second pool* (see at least column 17 lines 19-23....we may again run the six

separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)

15. Claim 10:

Ausubel shown, discloses the following limitations:

- *inverse bid function comprises a function that is applicable to an independent private values ("IPV") auction (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)*

16. Claim 11:

Ausubel shown, discloses the following limitations:

- *direct bid function comprises a function that is applicable to an independent private values ("IPV") auction (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)*

17. Claim 12:

Ausubel shown, discloses the following limitations:

- *processor (see at least column 6 lines 18-23....the auctioneer's computer or auctioneer's system implements an auctioneer process or query process and may consist of one or more computers, workstations, or any other hardware items which contain a CPU and may contain an interface including for example a keyboard and display)*
- *application executable by said processor and that causes the processor to organize previously acquired auction data into a plurality of sub-samples (see at least column 6 lines 18-23....the auctioneer's computer or auctioneer's system implements an auctioneer process or query process and may consist of one or*

more computers, workstations, or any other hardware items which contain a CPU and may contain an interface including for example a keyboard and display)

- *each sub-sample comprising bid data associated with auctions having a common number of bidders* (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)
- *apply an inverse bid function to at least two sub-samples* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *re-sample results from applying the inverse bid function to generate re-sampled data* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *apply a direct bid function on the sampled data to generate sample bids* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *match bids from at least one sub-sample to the sample bids* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)

18. Claim 13:

Ausubel shown, discloses the following limitations:

- *inverse and direct bid functions comprise functions that are applicable to an independent private values ("IPV") auction* (see at least column 6 lines 50-

51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)

19. Claim 14:

Ausubel shown, discloses the following limitations:

- *one instruction that organizes previously acquired auction data into a plurality of sub-samples* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *each sub-sample comprising bid data associated with auctions having a common number of bidders* (see column 6 lines 39-43....message may include each of following: the current proposed terms of trade for the auction (e.g. prices and/or quantities), information about the history of bidding....all of this information is stored in a database used for analysis)
- *one instruction that applies a first bid function to at least two sub-samples* (see at least column 17 lines 19-23....we may run again the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)
- *one instruction that re-samples results from applying the first bid function to generate re-sampled data* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)
- *one instruction that applies a second bid function on the sampled data to generate sample bids* (see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)

- *one instruction that matches bids from at least one sub-sample to the sample bids* (see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)

20. Claim 15:

Ausubel shown, discloses the following limitations:

- *first bid function comprises an inverse bid function* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)

21. Claim 16:

Ausubel shown, discloses the following limitations:

- *second function comprises a direct bid function* (see at least column 6 lines 60-63....bidding rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)

22. Claim 17:

Ausubel shown, discloses the following limitations:

- *one instruction that forms previously acquired auction data into a plurality of sub-samples*(see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)
- *each sub-sample comprising auction data associated with auctions having a common number of bidders* (see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)
- *first sub-sample comprising bid data associated with auctions having more bidders than all other sub-samples* (see at least column 6 lines 60-63....bidding

rule may indicate the willingness to make an unconditional bid or a contingent bid, and may consist of a function based on available information as to bid quantities....e.g. function of the previous bids submitted)

- *one instruction that applies an inverse bid function to the largest sub-sample to produce initial pseudo values* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *one instruction that applies a direct bid function to the initial pseudo values to calculate sample bids associated with a second sub-sample that is the next largest sub-sample, in terms of number of bidders, after the first sub-sample* (see at least column 17 lines 19-23....we may again run the six separate, simultaneous auctions listed in Example A, each again consisting of two or three simultaneous sub-auctions)
- *one instruction that matches bid data contained in the second sub-sample with the sample bids to produce second pseudo values* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)
- *one instruction that combines the first and second pseudo values together to produce combined auction values* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)

23. Claim 18:

Ausubel shown, discloses the following limitations:

- *one instruction that applies the direct bid function to the combined auction values to calculate additional sample bids* (see at least column 6 lines 50-51...bidding information may include a bidding rule such as a scalar-value, vector-value or function....information used to make calculations/determinations)

Art Unit: 3696

24. Claim 19:

Ausubel shown, discloses the following limitations:

- *matching the additional sample bids with a sub-sample to produce additional auction values* (see at least column 33 lines 19-22....one exemplary way to perform step is to compare the current maximized revenues with a function of the maximized bid revenues obtained in previous iteration(s) of the loop....process is done to get bids)

FINAL CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONCLUSION

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Michael D. Cranford** whose telephone number is **571-270-3106**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Thomas Dixon** can be reached at **571-272-6803**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

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or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark**

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/ Michael Cranford / Examiner / Art Unit 3696/
January 29, 2009